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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/855,337	05/15/2001	Hirofaka Uchiyama	8085	1086

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EXAMINER

CHANNAVAJALA, LAKSHMI SARADA

ART UNIT PAPER NUMBER

1615

DATE MAILED: 10/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/855,337

**Applicant(s)**

UCHIYAMA ET AL.

**Examiner**

Lakshmi S. Channavajjala

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-58 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

Receipt of RCE, amendment and remarks all dated 7-25-05 is acknowledged.

Claims 1-58 are pending.

#### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7-25-05 has been entered.

The following rejection of record is maintained:

#### ***Claim Rejections - 35 USC § 102***

Claims 1-16, 18-30, 33-43, 49, 51 and 53-55 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,879,666 to Lucas et al (Lucas) or US 5,874,067 to Lucas et al (Lucas).

Lucas (both US patents) discloses odor-absorbing compositions comprising uncomplexed cyclodextrin (col. 3-4), emulsifiers such as those described in the instant specification (col. 5) and citric acid, which is safe for human skin. The description of uncomplexed cyclodextrins in Lucas meets the description of functionally available cyclodextrins in the instant specification. In particular, examples I-III of Lucas disclose

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the specific castor oil surfactant described in the instant specification. With respect to the claimed limitations regarding the % and the level of functionally available cyclodextrin, it is inherent to the composition of Lucas because the uncomplexed cyclodextrin disclosed is in the same amount as claimed. Further, Lucas discloses the same surfactants as claimed and hence the CMC and clog P values claimed are inherent to the surfactants of Lucas. Thus, Lucas anticipates instant claims.

### ***Claim Rejections - 35 USC § 103***

Claims 44, 50, 52 and 56-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,879,666 to Lucas et al (Lucas) or US 5,874,067 to Lucas et al (Lucas) in view of US 5,942,217 to Woo et al (Woo).

Neither patents of Lucas teach the use of the composition in a fabric softener, on a fabric or for hard surfaces. The patents also fail to disclose the specific quaternium antimicrobial compounds and the pH of claim 58.

Woo teaches compositions comprising uncomplexed cyclodextrin for absorbing odor from inanimate surfaces, particularly from clothes, fabric (col. 1, col. 3, lines 56-63; and cols. 6-8). Woo describes the same uncomplexed cyclodextrins as that of Lucas references, as well as that of instant invention. Woo also teaches inclusion of cyclodextrin compatible surfactants along with uncomplexed cyclodextrins for absorbing the odors from fabrics. Woo also teaches inclusion of antimicrobial compounds such as betaines, quaternary ammonium compounds etc., in the cyclodextrin composition (paragraph bridging col. 13-14) for their antimicrobial action.

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Therefore, it would have been obvious for one of an ordinary skill in the art at the time of the instant invention to use cyclodextrin composition for treating animate as well as inanimate surfaces such as fabrics because Woo teaches the same cyclodextrin compounds as having the ability to absorb malodors from fabrics and Lucas suggests using the composition for absorbing odors of a wide range such as foods, urine or other body fluids, that can be associated with skin as well as hard surfaces. Further, it would have been obvious for a skilled artisan to add antimicrobial compounds such as quaternary ammonium compounds of Woo in the composition of Lucas because Woo teaches that cyclodextrin molecules are susceptible to microbial growth and therefore including antimicrobial prevents any microbial growth in the composition containing cyclodextrins. Lucas ('666) suggests adjusting the pH in the range of 3.5 to 8 (col. 5, col. 7) and accordingly, adjusting the pH of the composition without losing the cyclodextrin activity would have been within the scope of a skilled artisan because Lucas ('666) suggests that a pH of 3.5 to 8.0 is suitable in order to reserve most of the cyclodextrin activity.

Claims 17, 31, 32 and 45-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,879,666 to Lucas et al (Lucas) or US 5,874,067 to Lucas et al (Lucas).

Neither of the Lucas patents teaches the claimed method of preparation and aggregate formation between cyclodextrin compatible and cyclodextrin incompatible surfactants, and then adding cyclodextrin to form a mixture. While the above references

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fail to specify cyclodextrin incompatible surfactants, Lucas references teach sulfosuccinate surfactants and other anionic surfactants (col. 5 of Lucas '666), which is described in the instant specification as cyclodextrin incompatible surfactants. Further, Lucas teaches preparing the cyclodextrin-containing odor absorbing compositions in different ways, mixing all the ingredients together or pre-combining less than all of the ingredients and then mixing the other ingredients and accordingly, absent evidence to the criticality of the steps in the claimed process, it would have been within the scope of a skilled artisan at the time of the instant invention to prepare the instant composition by combining all the ingredients in one step or mixing the components in different phases without affecting the final performance of the composition i.e., absorbing odor molecules.

### ***Response to Arguments***

Applicant's arguments filed 7-25-05 have been fully considered but they are not persuasive.

Claims 1-16, 18-30, 33-43, 49, 51 and 53-55 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,879,666 to Lucas et al (Lucas) or US 5,874,067 to Lucas et al (Lucas).

Applicants argue that "functionally available cyclodextrin" is defined on page 3 and page 4 of the specification and the presence of a strongly complexing material, which is accessible to the cavity of the uncomplexed or weakly complexed CD, defeats the functional availability. It is argued that where access is not impeded or controlled, it is common knowledge that materials with a weaker complexation constant will ultimately

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be replaced with material with a higher complexation constant from the environment. It is argued that the examples in the patents of Lucas contain ingredients DC365 and other non-ionic surfactants, which shift the equilibrium to the formation of complexes between CD and some component of DC365. It is also argued that in addition to the absence of anticipation, Lucas patents fail to teach capturing unwanted molecules from a surface. Applicants' arguments are considered but not found persuasive because the term "from a surface" includes animate (body or skin taught by Lucas) as well as inanimate surface. Further, the limitation is for future intended use and hence carries no patentable distinction. With respect to the limitation "functionally available cyclodextrin", applicants' arguments have been considered but not found persuasive because, instant claims do not distinguish over the prior art teachings of uncomplexed cyclodextrins. Further, examiner notes that the differences argued, particularly, the presence of strongly complexing materials in the prior art, are not reflected in the claims presented. Further, instant claims do not recite what material the cyclodextrin is functionally available to. Therefore, it is the position of the examiner that because the Lucas patents disclose the claimed cyclodextrins and hence the rejection has been maintained.

Claims 44, 50, 52 and 56-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,879,666 to Lucas et al (Lucas) or US 5,874,067 to Lucas et al (Lucas) in view of US 5,942,217 to Woo et al (Woo).

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Claims 17, 31, 32 and 45-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,879,666 to Lucas et al (Lucas) or US 5,874,067 to Lucas et al (Lucas).

Applicants' arguments with respect to the rejection of above claims are moot in view of the new rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lakshmi S. Channavajjala whose telephone number is 571-272-0591. The examiner can normally be reached on 9.00 AM -6.30 PM

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman K. Page can be reached on 571-272-0602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Lakshmi S Channavajjala  
Examiner  
Art Unit 1615  
September 29, 2005